

Human Development

Chapter 11 – Adolescence: Physical and Cognitive Development

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Best indicator of adulthood is emotional maturity rather than obvious criteria. (Finish school, marrying, parenthood, etc.)

Historically, adolescence has been much shorter because societies were less complex.

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Rites of passage – symbolic events or rituals to mark life transitions.

Adolescence Today

Age segregation – keeping members of one age group separate from adults or younger children.

Negative effects of age segregation

- Few opportunities to guide/tutor those less knowledgeable
- Few opportunities to apprentice with experienced people

Prolonged adolescence can be frustrating (longer economic dependence to gain skills/knowledge or low pay jobs)

Adolescents are most affected by major crises (war, social change, riots)

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People learn best when they can act on their environment, perceive consequences of their actions, and have power to cause change.

Mass media promotes “learned helplessness.”

Adolescents are particularly vulnerable to the passive role of media consumption.

Physical Development and Adjustment

Adolescence rivals infancy in terms of rapid biological changes.

Parents can influence the adjustment by their reactions.

Physical Growth and Changes

Changes occur in both boys and girls. Most are sex-specific.

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Hormone Changes

Endocrine glands greatly increase hormone output that triggers the adolescent growth spurt and puberty (sexual maturity) at about 10½ for girls and 12 to 13 for boys.

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Males produce more hormones called *androgens*. (*Testosterone* most importantly)

Girls produce more *estrogen* and *progesterone*.

The *hypothalamus* and the *pituitary gland* control secretion balance of the endocrine glands.

Hypothalamus initiates growth and reproductive capability.

Pituitary gland (master gland) produces several hormones including *growth hormone* and secondary *tropic hormones* that stimulate and trigger other glands (i.e. ovaries and testes)

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Puberty

Menarche – first menstrual period marks the approach of puberty in girls. First ovulation may occur one or more years later.

Puberty in boys is marked by the first emissions of semen containing viable sperm cells. (as early as 11 or as late as 16)

In earlier times, puberty occurred later than it does now. (1880s – 15½ for girls)

Sexual Maturity in Males

- Growth in testes and scrotum
- Penis growth one year later
- Appearance of genital hair
- Increased size in heart and lungs
- Boys develop more red blood cells than girls (testosterone)
- Growth of facial/underarm hair
- Body growth
- Change in voice
- Ejaculation of semen
- Increased output of oil/sweat glands

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Sexual Maturity in Females

- Breast development (breast buds first sign of puberty)
- Growth of pubic/underarm hair
- Body growth
- Menarche (late, after peak of growth spurt)
- Increased output of oil/sweat glands

Menarche begins as early as 9½ or as late as 16½ in US.

Average Menarche

- | | |
|-----------------------|-----|
| • US | 12½ |
| • Czechoslovakia | 14 |
| • Kikuyu of Kenya | 16 |
| • Bindi of New Guinea | 18 |

Menarche usually begins as the girl nears adult height (average 100 pounds).

Beginning cycles are often irregular and *anovulatory* (without a mature ovum)

Body Image and Adjustment

Adolescents continually appraise their body image.

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Adolescents are a *marginal group* (a group between cultures or on the fringe of a dominant culture) and feel an intensified need to conform.

Concern With Body Image

Boys tend to focus on strength and fitness whereas girls are more concerned with being too tall or too fat.

Body image is lowest for girls at age 13 (15 for boys) then rises steadily.

At all ages body image is lower for girls than boys.

There is a positive correlation between girls' body image and their mothers' body image.

Girls desire more specific changes in their bodies. (ears flat, hair straight)

Boys desire more general changes in their bodies. (more handsome, better build)

Early and Late Maturers

Early maturation tends to be a good thing for boys but mixed for girls.

Girls Reaction to Menarche

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Girls who are informed about menarche tend to do better with the experience.

Girls who are informed about menarche from males react more negatively to the experience.

When a mother or another female relative informs girls, they report a positive reaction to the experience.

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Sexual Attitudes and Behaviors

In middle childhood and late childhood, association is mostly with same-sex peer groups.

Biological changes during puberty triggers interest in the opposite sex.

The Sexual Revolution

Adolescents view themselves in terms of cultural norms.

Before 1960s, premarital sex was viewed as immoral, but males were pressured to have sexual experience before marriage where females were pressured to remain chaste until marriage.

In the 1960s, attitudes were much less restrictive and equal between the sexes regarding unmarried sex, masturbation, and same-sex orientation.

Reported teenagers of lost virginity

	Boys	Girls
1940s	33% - 66%	7%
1971	33% - 66%	33%
1982	33% - 66%	44%

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Problems associated with sexual liberation

- Teenage pregnancy tripled (between 1940 – 1975)
- Increase in STDs (syphilis, gonorrhea, genital herpes)
- HIV/AIDS came on the scene

In 1996 the 30,000 young adults diagnosed with AIDS probably contracted it when they were adolescents.

The sexual revolution began a decline in the 1980s. Serial-monogamy became popular. And homophobia increased probably due to the perception that homosexuals transmitted AIDS.

Masturbation

About ½ of girls and ¾ of boys masturbate.

Middle class males reported enjoyment where working class males reported guilt over the “unmanliness” of masturbation.

Gender Differences in Sexual Expression

Girls were encouraged to display passivity, nurturance and ability to “fit in” in order to be flexible and conform to the values of a potential spouse.

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Expressions of gender are always dependent on societal values and norms.

Factors Influencing Early Sexual Relationships

The age at which they first have sex still varies by gender, with males having more sex than girls.

Education

More education and higher economic class tends to be associated with more conservative views about sex.

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Psychological Factors

Boys with early sex experience tend to have high self-esteem.

Girls with early sex experience tend to have low self-esteem.

Family Relationships

Overly permissive AND overly restrictive parenting styles are both associated with earlier sexual activity in adolescents.

Sexually active adolescents report poor parent/child communication.

Teenagers from two-parent families have less and later sexual activity than those from single parent families.

Biological Factors

Early sexual activity may be influenced by earlier age of puberty, which is consistent with the observation that individuals who mature early tend to have sex earlier.

Sexual Abuse of Adolescents

Research by Russell, 1983.

- 32% of women had been sexually abused by 18 yr.
- 20% had been abused by 14 yr.
- <5% reported the incident to police (that is changing now)

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The impact of sexual abuse depends on multiple factors.

- Nature of the act
- Age and vulnerability of the victim
- If the offender is a stranger or family
- One-time thing or pattern of abuse
- Reactions of adults that are told of the incident

Most frequent are between an adolescent girl and an adult male relative or family member.

Stepfather or boyfriend is more likely than natural father.

Girls attitudes toward intimate relationships become distorted.

Teenage Patents

Babies born to adolescents has declined since the 1960s.

50% end in miscarriage or abortion.

In 1998, 380,000 babies were born to unmarried mothers 15–19 yr.

An additional 9,000 were born to unmarried mothers less than 15 yr.

The rate of Black or Hispanic mothers in both cases is more than twice that for whites.

Why Teenagers Become Pregnant

Teenagers in Western Europe and US are equally active sexually but pregnancy rates in Europe are much lower.

- Us Teen are less likely to use contraception (Why?)
- Less social stigma attached to unwed births than in past. (Less than Europe?)

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30% of sexually active adolescents do not use contraceptives

- Ignorant or irresponsible about sexual activity
- General passivity toward life
- "It can't happen to me."
- Fantasies/perceptions/expectations about the passions of the moment

Teenagers who attend sex education classes are more likely to use contraception than those who don't.

Effects of Early Parenthood

Possible impact of early parenthood

- Dropping out of school
- Work at lower paying jobs
- Experience greater job dissatisfaction
- Dependence on governmental support
- Greater tendency toward marital problems

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Many teenagers feel pressure to get married to leave the disapproval at home.

Adolescent marriage is more likely to cause dropouts than pregnancy.

Children of teenage parents are more disadvantaged than children of older parents.

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Cognitive Changes in Adolescents

Cognitive changes in adolescence include increasing abilities in abstract thought.

Abstract Thinking

Piaget characterized abstract thinking as the final stage of cognitive development.

Formal Operational Thought

Formal Operational Thinking – Piaget's final stage of cognitive development includes abstraction, speculation, and possibilities independent of the immediate environment or situation.

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Formal operational thought requires the ability to formulate, test, and evaluate hypotheses and also the manipulation of speculation. (Let's suppose...)

Adolescents gain the ability to plan ahead and think into the future.

Characteristics of adolescent thought:

1. Combine relevant variables in solving problems
2. Conjecture about variable interaction
3. Combine variables in a hypothetically-deductive fashion. (If A then B)

Not all individuals are capable of developing formal operational thought.

Some theorists suggest that it could be an extension of concrete operations rather than a separate stage.

A Continuous Process or a Dramatic Shift

Piaget believed that transitions between stages were dramatic and qualitative.

Others believe it is more gradual.

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Information Processing

Adolescent cognitive development includes;

1. More efficient use of separate components (memory, retention, and transfer.
2. More complex strategies for different types of problem solving.
3. More effective ways of acquiring information and storing it symbolically.
4. Higher order executive functions (planning, decision making, flexibility)

Scope and Content of Thought

The ability to deal with "contrary-to-fact" situations allows for pastimes such as science fiction, fantasy, horror, and experimentation with the occult, cults, altered states of consciousness.

Examining World and Family

Contrary-to-fact situations motivate adolescents to question and criticize all social institutions.

Battles at this stage over mundane daily matters may actually allow them to test independence over minor issues in the safety of the home and develop negotiation skills.

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Adolescents become more concerned with social, political, and moral issues. They develop holistic concepts of society and thinking becomes more sophisticated.

This is when they are able to make vocational decisions based on realistic self-appraisal and attainable career options.

Self-Insight and Egocentrism

Imaginary audience – Adolescents' assumption that others are focusing critical attention on them.

Adolescents tend to jump to conclusions and overreact to others as they try to figure out who they are.

Personal fable – feeling that they are special and invulnerable – exempt from the laws of nature that control ordinary mortals.

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Foundling fantasy – the belief that they can't possibly be part of such a flawed family.

Continuing Moral Development

Adolescents are forced to confront moral issues that are new to them. (sex, gangs, drugs, religion)

Making moral judgements about even life threatening behaviors takes time to develop.

Kohlberg believes that advanced moral reasoning can be taught. (Discuss a situation. If they suggest a stage 4 solution, teacher presents a stage 5 solution to be evaluated.)